



The STS-63 astronauts capture some memorable moments during the Mir rendezvous. Photos on Page 3.



Shuttle managers check out the Mir docking system for upcoming missions. Photo on Page 4.

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New manifest includes shuttle flights to 1998

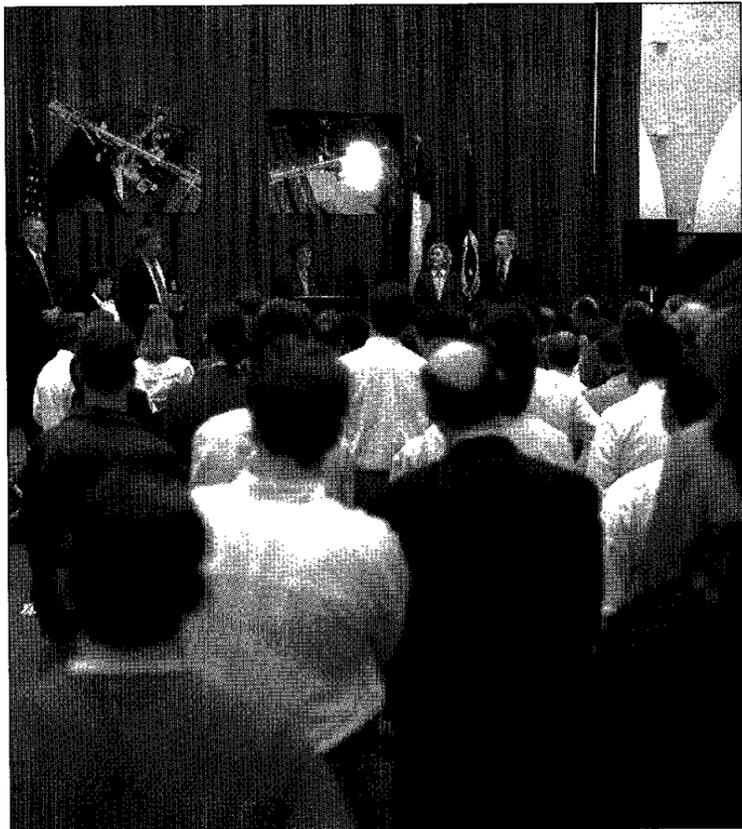
NASA's Office of Space Flight has released a new listing of planned space launches that covers shuttle payload assignments through 1998 and expendable vehicles through 2002.

The February 1995 Payload Flight Assignments NASA Mixed Fleet Manifest does not include shuttle planning for 1999-2002 because the International Space Station assembly sequence is not yet final.

Changes in the manifest since the previous edition (April 1994) include a reduction in the shuttle flight rate from eight to seven times per year. The flight rate change was made to accommodate changes in the shuttle operations budget.

Calendar year 1998 was added to the new manifest and includes the first five space station flights. The new manifest also includes the seven scheduled shuttle-Mir missions with all shuttle-Mir flights being assigned to the Space Shuttle *Atlantis*.

Space News Roundup plans to publish a Franklin Planner-style abbreviated shuttle manifest in an upcoming edition.



JSC Director Dr. Carolyn L. Huntoon introduces official visitors to JSC employees Tuesday in Bldg. 9. From left are Houston Mayor Bob Lanier, U.S. Sens. Barbara Mikulski, Christopher Bond and Kay Bailey Hutchison, and NASA Administrator Daniel S. Goldin.

JSC Photo by Mark Sowa

Senators pledge continued space program support

Three key U.S. senators renewed their support to America's space program and the work being done here during a Tuesday visit to JSC, but acknowledged that even the best federal programs will come under fiscal scrutiny this year.

Sens. Kay Bailey Hutchison, R-Texas; Christopher Bond, R-Mo.; and Barbara Mikulski, D-Md.; all voiced their pride in the men and women of JSC—what NASA Administrator Daniel S. Goldin called "the best team in the world"—and promised to work hard to ensure that America does not eat its scientific and technological seed corn.

Following discussions and a brief tour, JSC Director Dr. Carolyn L. Huntoon introduced the group, which included Houston Mayor Bob Lanier, to several hundred JSC employees clustered among the mock-ups of the International

Space Station modules in Bldg. 9.

Hutchison, who recalled growing up in LaMarque and covering the space program as a cub television reporter, said that the country's science spending has gone down, from 5 percent to 2 percent of the federal budget, and that no matter whether that money goes to Texas or elsewhere she believes it is an important investment in America's future.

"What matters to me is that we continue to have the commitment in this country to have the new wave of technology that creates the new industries that create the jobs for the future generations that are coming on-line in this country," Hutchison said. "It matters to me that we continue to venture out and say that we are going to be able to live and experiment in space and it is going to benefit our lifestyle and our health in the future."

Please see **MIKULSKI**, Page 4

Trio of telescopes to study celestial targets

Second flight of Astro-2 expected to yield cache of astronomical data

By Rob Navias

Final preparations are under way at the Kennedy Space Center for the scheduled launch of *Endeavour* in the wee hours March 2 on the second shuttle mission of the year, a record-setting 15 1/2 day flight to study the mysteries of ultraviolet radiation emanating from distant galactic objects.

The STS-67/ASTRO-2 mission is planned to be the longest shuttle mission in history, designed to enable seven astronauts to split into two shifts working around-the-clock to acquire data on quasars, stars, and galaxies through the use of a trio of telescopes mounted in *Endeavour's* cargo bay.

"We're looking forward to an exciting mission in which we hope to gather valuable information for a lot of researchers on Earth," Commander Steve Oswald said during a pre-

flight news conference.

Oswald, Pilot Bill Gregory, Payload Specialist John Grunsfeld and Wendy Lawrence and Payload Specialist Sam Durrance and Ron Parise are scheduled to fly to KSC on Sunday night, just hours before the start of the countdown that will lead to *Endeavour's* eighth launch at 12:37 a.m. CST on Thursday at the opening of a 2 1/2 hour launch window. Durrance and Parise are flying with the ASTRO payload for the second time, having been part of the STS-35 crew during the ASTRO-1 mission in December 1990.

As the countdown begins, a cadre of astronomers is arriving at the Payload

Operations Control Center at Marshall Space Flight Center in Huntsville, Ala. The Payload Mission researchers will use the POCC as their base



ENDEAVOUR

of operations to monitor the performance of the Hopkins Ultraviolet Telescope, the Ultraviolet Imaging Telescope and the Wisconsin Ultraviolet Photo-Polarimeter Experiment during the mission. As usual, *Endeavour's* journey will be controlled out of Flight Control Room One in the Mission Control Center through the watchful eye of four teams of flight controllers, led by Lead Flight Director Chuck Shaw.

Although it has been more than four years since the complement of ASTRO instruments last flew in space, scientists have not lost

their enthusiasm for the potential cache of data which is expected to be returned from more than two weeks of observations.

"These telescopes should enable us to learn new things about the composition of some of the wondrous objects in our universe," said Dr. Robert Jayroe, the ASTRO-2 Mission Manager.

The trio of telescopes will be precisely aimed at a variety of celestial targets through the use of the Instrument Pointing System, a European-built swiveling platform in the cargo bay that can accurately train the ultraviolet devices on their targets for simultaneous co-investigations.

In addition to the ASTRO-2 payload, the astronauts will conduct several days of work with the Middeck Active Control Experiment, Please see **ENDEAVOUR**, Page 4

Nearly 1,000 employees choose to accept buyout

JSC's Human Resources Office this week issued an update on where JSC and NASA stand with buyouts and early outs.

Human Resources Director Harvey Hartman said his office has been fielding a large number of questions about the buyout, the current hiring freeze and associated activity and decided it would be beneficial to share some of the more common ones with employees.

As of Feb. 17, a total of 947 employees from across NASA have applied for the buyout, including 70 from JSC and two from the Space Station Projects Office. Results at other NASA locations include Headquarters, 63; Ames, 69; Dryden, 17; Goddard, 190; Langley, 197; Lewis, 79; Kennedy, 138; Marshall, 112; and Stennis, 10. Applications will continue to be accepted through March 24.

The buyout law that applies to NASA expires March 31. A provision in the law allows NASA Administrator Daniel S. Goldin to grant limited extensions for mission critical activities to employees who apply for and

are granted an extension before March 31. The Administrator has indicated that he plans to use this authority only in rare cases that meet that criteria and that it will not be used to accommodate personal preferences or to extend large groups of people beyond March 31.

On Feb. 13, the Administrator imposed a freeze on hiring of permanent employees because of the fiscal year 1996 budget. NASA management will re-evaluate the need for a freeze following decisions from the zero-based review. That review report is anticipated May 17.

Promotions at the field centers are not frozen, Hartman said. JSC is continuing to fill jobs through the internal competitive placement process as well as process career growth promotions. The promotion freeze applies only to senior level promotions (GS-14 and above) at NASA Headquarters. There also is a hold on all new Senior Executive Service vacancy announcements agencywide.

No decision on whether a reduction in force will be necessary at JSC

Please see **BUYOUT**, Page 4



Photo by J. Pamela Photography

SPACE TROPHY—NASA Administrator Dan Goldin accepts the Rotary National Award for Space Achievement at a Houston Hyatt Regency banquet. Goldin was cited for "outstanding executive leadership in pioneering a sea change at NASA."

Engineers week in full swing; more volunteers needed

National Engineers Week is in full swing with JSC volunteers going out to more than 600 hundred classrooms in 96 different schools in the surrounding areas. Still more volunteers are needed to fill last-minute vacancies.

Participants began visiting classrooms last week in an effort to fill all the requests for volunteers. From elementary to high school level, engineers and other professionals are taking hands-on space technology to students.

"It was really a lot of fun. There were some really bright students with great ideas," said Alan Currie, a computer engineer in the Flight Software Branch of the Engineering Directorate's Avionic Systems Division.

"I took out a center of gravity experiment and the students really enjoyed it and had a lot of questions. One of the boys had seen something similar and was almost able to do it on his own," said Currie, who visited Betty Kerstien's physical science class at Jamison Middle School in Pearland.

"The teacher really appreciated the exposure to real life work," Currie said.

While National Engineers Week officially is this week, JSC expanded the program to cover three weeks. The Engineers' Week coordinator is seeking engineers and other professionals to visit schools in Baytown, The Highlands and Galena Park. To volunteer call Norma Rhoads at x30235.

JSC

Ticket Window

The following discount tickets are available for purchase in the Bldg. 11 Exchange Store from 10 a.m.-2 p.m. Monday-Thursday and 9 a.m.-3 p.m. Friday. For more information, call x35350 or x30990.

Musical concerts: Cats at 8 p.m. April 14 at Jones Hall. Tickets cost \$36. Tickets on sale through March 10. Miss Saigon at 8 p.m. July 21 at Jones Hall. Tickets cost \$58. Tickets on sale through March 8.

Ice hockey: Houston Aeros vs. Milwaukee at 7 p.m. March 25 at the Summit. Lower level tickets cost \$11. On sale through March 15.

Rodeo tickets: Some performances are still available. Tickets cost \$9.50.

Moody Gardens: Discount tickets for two of three different attractions: \$9.50

Space Center Houston: Discount tickets: adult, \$8.75; child (3-11), \$7.10.

Metro tickets: Passes, books and single tickets available.

Movie discounts: General Cinema, \$4.75; AMC Theater, \$4; Loew's Theater, \$4.75.

Stamps: Book of 20, \$6.40.

JSC history: *Suddenly, Tomorrow Came: A History of the Johnson Space Center*. Cost is \$11.

Space greetings: NASA wrapping paper and greeting cards are now available.

Upcoming events: Houston International Festival from April 20-30. Tickets cost \$3.

JSC

Gilruth Center News

Sign up policy: All classes and athletic activities are first come, first served. Sign up in person at the Gilruth Center and show a NASA badge or yellow EAA dependent badge. Classes tend to fill up two weeks in advance. Payment must be made in full, in exact change or by check, at the time of registration. No registration will be taken by telephone. For more information, call x30304.

EAA badges: Dependents and spouses may apply for photo identification badges from 7 a.m.-9 p.m. Monday-Friday; and 8 a.m.-4 p.m. Saturdays. Dependents must be between 16 and 23 years old.

Weight safety: Required course for employees wishing to use the weight room is offered from 8-9:30 p.m. March 14 and March 30. Pre-registration is required. Cost is \$5.

Defensive driving: Course is offered from 8:15 a.m.-3 p.m. Saturday. Next class is March 4. Cost is \$19.

Exercise: Low-impact class meets from 5:15-6:15 p.m. Mondays and Wednesdays.

Aikido: Martial arts class meets from 5-7 p.m. Tuesdays and Wednesdays. Cost is \$25 per month. New classes begin the first of each month.

Country dancing: Beginners class meets from 7-9 p.m.; advanced class meets from 8:30-10 p.m. Partners are required. For additional information, contact the Gilruth Center at x33345.

Ballroom dancing: Ballroom dancing classes. Cost is \$60 per couple. New class begins March 2. For additional information call the Gilruth Center at x33345.

Spring softball: Registration for spring softball league will be at 7 a.m. from March 7-10. Mixed B may register March 9. Mixed C may register March 7. Men's A may register March 10. Men's B may register March 9. Men's C may register March 8. Men's over 40 may register March 10.

Fitness program: Health Related Fitness Program includes a medical examination screening and a 12-week individually prescribed exercise program. For more information, call Larry Wier at x30301.

JSC

Property

Rent: El Dorado Trace, 2-2, furn, W/D, FPL, TV/VCR, \$675 + elec. 333-8126 or 488-1327.

Sale: Rosewood Memorial Cemetery, 4 lots, \$395/ea. x40250 or 941-3262.

Rent: Galveston condo, furn, sleeps 6, Seawall Blvd & 61st St, wknd/wkly/daily rates. Magdi Yassa, 333-4760 or 486-0788.

Rent/Sale: Egret Bay waterfront condo, 1-1, FPL, fans, appl, \$530/mo + dep. Karl, x33031 or 334-1164.

Lease: Clear Lake Shores, cottage, 2-2-1, furnished, \$1k/mo. Corcoran, x33005 or 334-7521.

Rent: Arkansas cabin, Blue Mt Lake, furn, \$250/wkly or \$50/dly. Corcoran, x33005 or 334-7531.

Lease: El Dorado Trace condo, 2-2.5, W/D, FPL, cov parking, \$675/mo. x34696 or 486-3980.

Sale: Santa Fe/Alta Loma, Ave E., 2.5 acres, mineral rights, 220' x 495', \$20k. 337-1311.

Sale: Baywind II condo, 1-1, new carpet/paint, W/D, appliances, FPL, \$23k. 486-8047.

Sale: Camino South, 3-2-2, cul-de-sac, FPL, sec sys, skylight, \$77k. x34663 or 554-6104.

Lease: El Dorado Trace condo, 2-2-2, FPL, appli, W/D, new paint/carpet, \$625/mo. Rose, x48067 or 488-6046.

Sale: Heritage Park, 3-2-2, 2,000 sq ft, new appli/roof, A/C, new paint/floor, \$87k/obo. 996-6062.

Sale: San Leon, herb farm, 2.5 acres, 16 x 80, 3-2, mobile home, gar, pond, fen, 333-6277 or 339-3562.

Sale: Camino South, 3-2-2A, FPL, pool appliances, \$75k. Mike, 480-0336.

Sale/Lease: Near 290&1960, 3-2-2A, new roof/heat pump/paint/carpet, \$65k. x31265 & 286-3161.

Sale: Santa Fe, Ave E. & 31st south of Hwy 646, frt 220' x 495', mineral rights, \$20k. 337-1311.

Lease: Camino South, 4-2-2D, ceiling fans, new paint/AC/H, no pets, refer, dep. 488-1301.

Sale: Waterfront 1/2 ac lot on Dickinson Bayou, new bulkhead, \$85k. x31370.

Rent: Clear Lake Condo, 1-1, FPL, fans, W/D conn, dishwasher, \$395/mo + dep. x32488 or 488-5969.

Sale: Clear Lake City, condo, upstairs, 1BR, FPL, refrig, W/D, \$22.5k. 488-3171.

Sale: League City, Habourview, 3-4 BR, garden bath, FPL, formals, \$114.5k. 488-3171.

Cars & Trucks

'84 Toyota Corolla SR5, 3-dr, A/C, 5 spd, 99k mi, \$2.8/obo. x48785 or 486-8266.

'90 Pontiac Firebird, black, ex cond, runs great, \$6,250 nego. Patrick, 488-3198.

'87 Mazda 626 LX, auto, 4 dr, 77k mi, A/C, loaded, sunroof, \$4k. 488-8588.

'83 Olds Tornado, 307, V-8, all power, \$2k nego. Steve, 947-3270.

'80 Corvette, PS/PW/door locks, 350 auto, needs carpet, \$6.5k firm. Steve, 947-3270.

'85 Corvette, red/tan, removable roof, 103k mi, ex cond, \$8k/obo. 538-3434.

'92 Nissan 240SX LE, 5 spd, loaded, 12k mi, \$13.9 nego. Ken, x48810 or 486-4763.

'68 VW, not running, \$800. 409-765-8453.

'38 Dodge, \$5k. 409-765-8453.

'91 Chevy Lumina Eurosport, ex cond, 60k mi, \$8,950. John, x38988 or 486-6364.

'83 Toyota Cressida, brown, sunroof, pwr, cold air, runs great, 1.5k. Steve, x49625 or 486-8047.

'82 Camaro, runs great, needs minor work, nego, serious buyers only, Verne, 280-2661.

'90 Chev Mark III custom van, 3/4 ton, 350 V-8, new tires, loaded, dual A/C, stereo w/cass, 48k mi, ex cond, \$12k. Betty, x37242 or 332-3724.

'91 Taurus GL, full pwr, tilt/cruise, AM/FM/cass, alum wheels, 71k mi, ex cond, \$4.9k. 337-4495.

'86 Pontiac Fiero 2M4, gold, auto, 80k mi, good cond, runs great, \$2k. 998-1475.

'83 Nissan Sentra hatchback, 3 dr, A/C, 5 spd, 123k mi, eng rebuilt '94, \$1,450/obo. 464-8694.

'92 Mitsubishi 3000GT, 5 spd, A/C, charcoal gray, 20k mi, \$15.2k. Mark, x47112.

'84 Toyota Corolla SR5, 3-dr, A/C, 5 spd, 99k mi, x48785 or 486-8266.

'68 Mustang, 2 dr, good mech cond, AT, PS, \$2,850/obo. Scott, 282-5455 or 554-2206.

'86 Chevette, auto, A/C, clean, 1 owner, 78k mi, \$1.3k. Juan, x38833 or 333-0406.

'76 Monte Carlo, new rear tires/starter/control module/pump, needs altern, \$450/obo. Mike, 482-8494.

'72 VW Super Beetle, runs ex, good shape, \$1.2k. x32232 or 291-9610.

'84 Olds Calais, 5 spd, A/C, good cond, 4 cylinder, \$1,850/obo. 991-0821.

'93 Ford Probe GT, auto, A/C, AM/FM/cass, leather, ex cond, \$14,750. x30745 or 992-4043.

Cycles

'86 Kawasaki Ninja 1000R, 17k mi, ex cond, experienced rider only, \$3.7k. x37363.

Boats & Planes

'69 Sportcraft, 14' boat, w/trlr, 55hp Johnson O/B motor, runs good, \$975. Sam, 332-3168.

Ultra-light airplane, Quicksilver MX, night beacon, gauges, \$2k/obo. x32066.

'92 Seadoo XP w/trailer, cover, custom grate, rear step, ex cond, \$3.7k/nego. Mark, x38211 or 331-9345.

Jon boat, 12' & trlr, w/Bass seats, ex cond, 7hp motor needs minor repair, \$550. x45159 or 992-9938.

Sovereign 24', ex cond, depth sounder, sleeps 4, elect start Johnson O/B, \$7.5k/obo. Mike, 282-2787 or 532-1240.

Audiovisual & Computers

Tektronix 4105 graphics terminal & 4695 color printer, \$475/both. 328-3840.

Pioneer 100watt speakers, \$50. John, x33662 or Kathy, 337-5622.

CSX-140 Citizen printer, GSX color option, \$250. Magdi Yassa, 333-4760 or 486-0788.

Epson LX-80 dot matrix printer w/tractor feed option, printer stand/dust cover, \$75. Rich, x48959 or 532-1673.

Sony car Discman w/car kit & wireless remote, \$200/obo. Thanh, x31464.

Panasonic bookshelf stereo, 2 tape decks, phono, radio, CD ready, 2 spkrs, \$50. x45752 or 326-5647.

Apple II Plus, FD, joystick, paddle cntrl, games/SW, \$200 w/color TV mont, \$300. 332-9938.

Gold Star model 1405 b/w computer monitor, \$30/obo. Leah Elliott, x38687.

PDA Apple Newton, ex cond, \$350. 977-4508.

Video games, Sega Genesis w/several games, 2 controllers, good cond, \$100. 977-4508.

Sony Sports digital radio headphones, model SRF-M50, \$20 firm. John, x3114 or 486-0898.

Audio Source model SS-3 surround sound processor, \$120; JVC RX-R75 recvr, 5-band EQ; video, CD, phono inputs w/remote, \$140. Lannie, x35807.

JSC

Dates & Data

Today

Cafeteria menu: Special: fried chicken. Total Health: vegetable lasagna. Entrees: pollock hollandaise, beef stroganoff, vegetable lasagna. Vegetables: steamed broccoli, carrots vichy, Italian zucchini, breaded okra.

Monday

Quality conference: The third annual Conference on Quality in the Space Industry will be held from 8-6 p.m. Feb. 27 at South Shore Harbour Resort. For registration and information call Glen VanZandt at x33069.

Cafeteria menu: Special: meat sauce and spaghetti. Total Health: potato baked chicken breast. Entrees: wieners and beans, sweet and sour pork chop, potato baked chicken, steamed fish, French dip sandwich. Soup: cream of broccoli. Vegetables: French cut green beans, seasoned rice, California vegetables, buttered beans.

Tuesday

Cafeteria menu: Special: smothered steak with dressing. Total Health: baked potato. Entrees: beef stew, liver and onions, shrimp Creole, baked chicken, fried cod fish, French dip sandwich. Soup: navy bean. Vegetables: steamed rice, seasoned cabbage, corn O'Brien, peas.

Wednesday

Biotechnology lecture: The Center for Advanced Space Studies and the University of Houston Clear Lake will host a biotechnology lecture at 7:30 p.m. March 1 in the Bayou Bldg. Dr. Neal Guentzel will discuss "Bioremediation: The Use of Microorganisms to Remove Toxic Contaminants." For additional information call Barbara Rumbaugh at

244-2000.

Astronomy seminar: The JSC Astronomy Seminar will meet at noon March 1 in Bldg. 31, Rm. 129. An open discussion meeting is planned. For more information, call Al Jackson at 333-7679.

Toastmasters meet: The Space-land Toastmasters meets at 7 a.m. March 1 at House of Prayer Lutheran Church on Bay Area Blvd. For additional information, contact Darrell Boyd, x36803.

Bike ride: The JSC Bicycle Club will meet for a 1.1- and a 1.6-mile loop at 5:30 p.m. March 1 behind the Grumman Bldg. at Ellington Field. For more information call Juliette Wolfer at x38459.

Cafeteria menu: Special: salmon croquette. Total Health: baked potato. Entrees: roast pork, stir fry-baked chicken, steamed fish, vegetable lasagna, Reuben sandwich. Soup: seafood gumbo. Vegetables: mustard greens, okra and tomatoes, vegetable sticks, lima beans.

Thursday

Cafeteria menu: Special: stuffed cabbage rolls. Total Health: baked potato. Entrees: beef tacos, ham and lima beans, pork and beef egg rolls, steamed fish, catfish, French dip sandwich. Soup: beef and barley. Vegetables: Brussels sprouts, green beans, buttered squash, pinto beans.

Friday

Cafeteria menu: Special: baked chicken. Total Health: roast beef au jus. Entrees: deviled crab, baked chicken, beef cannelloni, steamed pollock, Reuben sandwich. Soup: seafood gumbo. Vegetables: seasoned carrots, peas, breaded okra, steamed cauliflower.

March 8

PSI meet: The Clear Lake/NASA

Area Chapter of Professional Secretaries International meets at 5:30 p.m. March 8 at the Holiday Inn on NASA Road 1. Dr. Gloria Goldstein will present "Living in the NOW; No More Procrastination." For information, contact Elaine Kemp x30556.

March 15

Contract seminar: Space Center-Houston Chapter of the National Contract Management Association will host the Spring National Education Seminar from 8:30 a.m.-5 p.m. March 15 at the University of Houston Clear Lake Bayou Bldg. auditorium. The seminar will address the fundamentals of contract costs. Registration for members is \$135, non-members \$185. For registration information civil servants should contact Richard Regenburgh at 244-5973, contractors should call Kathleen Martins at 333-7191.

March 30

AIAA workshop: The American Institute of Aeronautics and Astronautics will host a real-time workshop on MATLAB from 9 a.m. to 4 p.m. March 30 at the LPI Lecture hall. For additional information call Naz Bedrossian at 333-2127.

April 12

PSI meet: The Clear Lake/NASA Area Chapter of Professional Secretaries International meets at 5:30 p.m. April 12 at the Holiday Inn on NASA Road 1. For more information, contact Elaine Kemp x30556.

May 10

PSI meet: The Clear Lake/NASA Area Chapter of Professional Secretaries International meets at 5:30 p.m. May 10 at the Holiday Inn on NASA Road 1. For additional information, contact Elaine Kemp x30556.

Swap Shop

106MB HD, 15ms access time, \$25; Quarantine CD, \$20; Outpost CD for Windows, \$20 boxes & manuals for CD. x33187 or 488-5162.

IBM 70MB ESDI HD, \$150; 1.44MB HFD, \$40; 2 MB 72 Pin RAM, \$90/ea; IBM PS/2-60 memory expan card, \$20; Intel 80386 33 MHz & 80387 co-processor, \$80; Toshiba MFM/RL 70MB HD, \$60. 480-0667.

Infinity SM120 200W 3-way speakers, \$475/pair/obo. Chris, 280-4394 or 474-7263.

IBM XT compatible computer, color monitor & printer, \$200/obo. 409-848-1615.

AT&T 6300 computer, deluxe color monitor, 40MB HD, all manuals, \$450. 326-3396.

Photography

Telescope mount, Equatorial yoke mount w/tube for 12.5", F/5 mirror, needs optics, portable, built for 30 degrees latitude, \$200. John, 747-8315.

Musical Instruments

Violin, Lewis Brand, student sz w/case, ex cond, \$400. Steve, x34656 or 480-7127.

Guitar amp, Peavey Classic model, 2 -12" spkrs, reverb, tremolo, chorus, footswitch, 4 channels, \$395; Takamine F4005, elect 12 string acoustic guitar, solid spruce top gold hwr, new 1.6k sell \$795; guitar, Epiphone Emperor TH jazz archtop elect w/case, \$795. 280-9621.

B Clarinet, wood, Selmer signet special w/ Selmer C mouthpiece. x32622 or 474-5208.

Pets & Livestock

Rottweiler puppies, AKC registered, \$350. Linda, 484-0987.

Male German Shepherd/Lab, beige, 1 yr old, \$100. x32983 or 482-6535.

Yorkie pups, 1/4/95, 3M/2F, vet checked, tails docked, parents on premises, no papers, \$125. Karen, 479-8297.

Free puppies, 7 wks, med-lg build, mixed, x36726 or 482-2450.

Household

RCA color TV, 26" console stereo monitor/recvr w/remote, \$350. Jane, x41083.

Basset sleeper/sofa, qn sz matt, blue, \$250; Magnovox 19" TV, ex cond, \$100. John, x33662 or Kathy, 337-5622.

4 cycle washer & dryer, \$250/set. x45353 or 488-0876.

Free Zenith 25" color console TV, oak, erratic on/off, you pick it up. 488-5058.

GE cordless phone, dual-wave noise filter, 10-No. memory, charge indicator light, redial, on/off ringer switch, \$50. 992-1768.

Dining table, 6 chairs, china cabinet, \$500; 2 end tables, coffee table, \$200; 2 lg brass lamps, \$25/ea; entry-way table w/matching mirror, \$150. Sulane, x39381 or 482-2524.

Sears food processor, 2 blades, \$25. 332-9938.

Breakfast table w/4 chairs, 2 leaves, \$200. 286-0022.

Love seat, brown velour, contemporary style. x40250 or 941-3262.

Chrome & Glass dining room set, 5', maroon seats, \$75/obo. Mark, x37591 or 488-0056.

King size waterbed, frame, std mattress/heater, 6 drawers, headboard, liner, \$175. x31370.

Apartment size electric stove, good cond, \$50/obo.

Scott, 282-5455 or 554-2206.

Ginger jar style lamps, 2, w/peach, ex cond, w/ shades, \$50/ea; coffee table, oval, ball-in-claw curved leg, mahogany w/inlay banding, ex cond, \$300. Steve, x34656 or 480-7127.

King size bed, frame/sheets/comforter, \$300; red naugahyde chair & ottoman, \$35; 2 AR spkrs, \$20. x45752 or 326-5647.

Sears Kenmore W/D, 80 series, heavy duty, \$500/set; Steele office desk, \$150. x31047 or 538-1077.

Oak finish Crib n Bed, 3 drawer chest, 2 blanket drawers, \$180. John, x36515.

Wanted

Want personnel to join VPSI vanpool, West Loop Park & Ride lot at 6:50 a.m. to NASA/Contractors. Richard, x37557 or Ed, x36124.

Want personnel to join VPSI Vanpool departing Meyerland Park & Ride lot at 7:05 a.m. for JSC, vanpool consists of on-site personnel working the 8 a.m.4:30 p.m. shift, currently have 15, looking for 2-3 more. Travis Moebes, x45765 or Don Pipkins, x35346.

Want school/work car or truck. 271-7011.

Mir meets Discovery

On a historic eight-day mission that featured the first rendezvous with the Mir space station, the first female pilot and the first Afro-American space walk, the STS-63 crew captured memories to share with the world. From left to right, top to bottom:

1) Cosmonaut Valeriy Polyakov looks out Mir's window at *Discovery*. Crews from both the Mir and *Discovery* talked and waved to each other during the rendezvous.

2) Eileen Collins, the first female shuttle pilot, prepares to "hotfire" a leaky thruster prior to the rendezvous. Both American and Russian scientists were concerned that leaky thrusters could possibly damage solar panels on the Mir space station.

3) Mission Specialist Janice Voss works with one of the many onboard cameras during the mission. The cameras enabled television viewers to see the rendezvous as it happened.

4) Commander Jim Wetherbee works with the Radiation Monitoring Experiment in Spacehab-3. The RME measured ionizing radiation over repeated time intervals and stored the results.

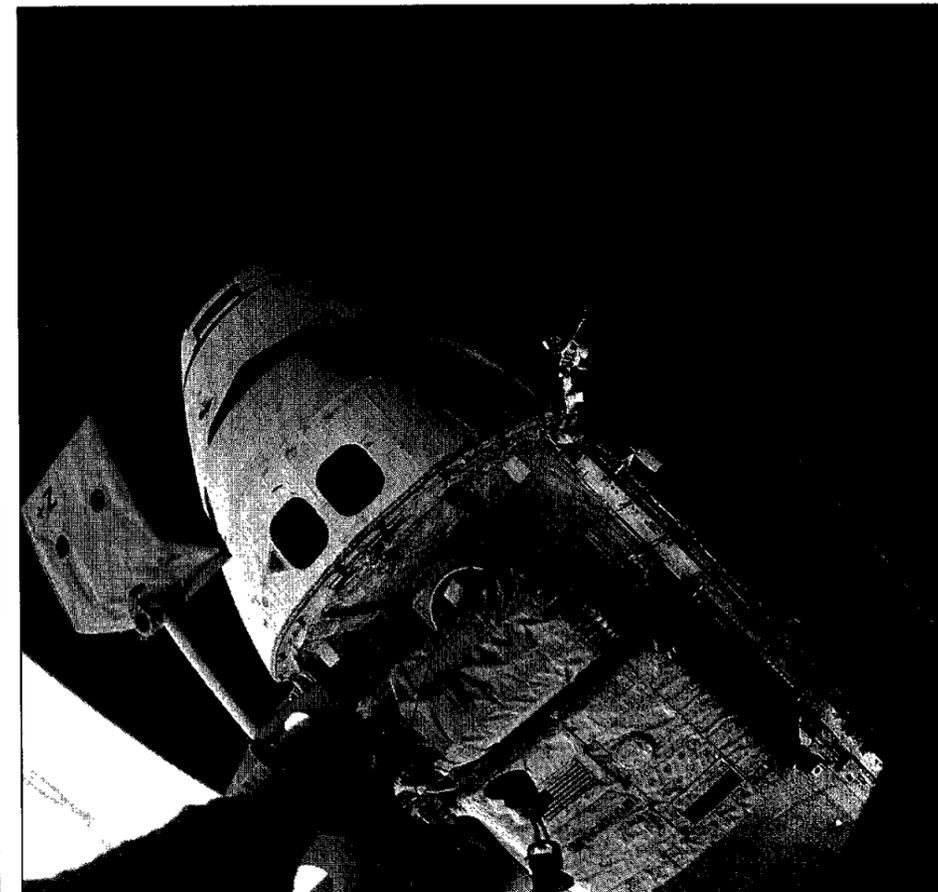
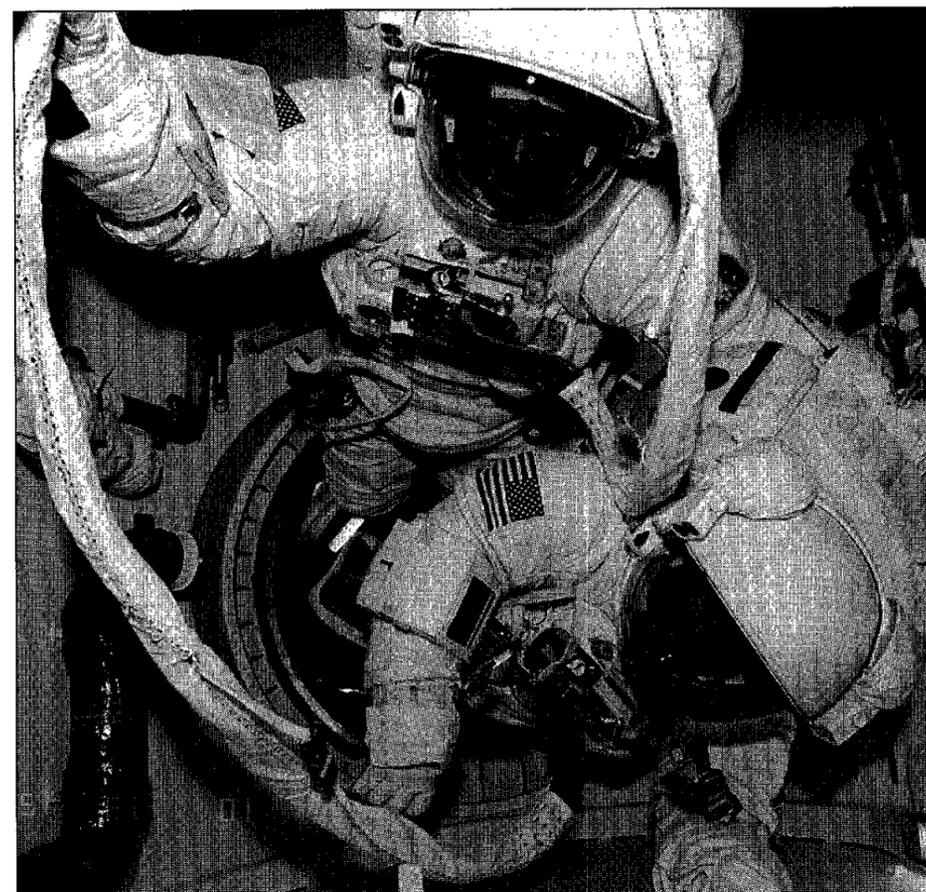
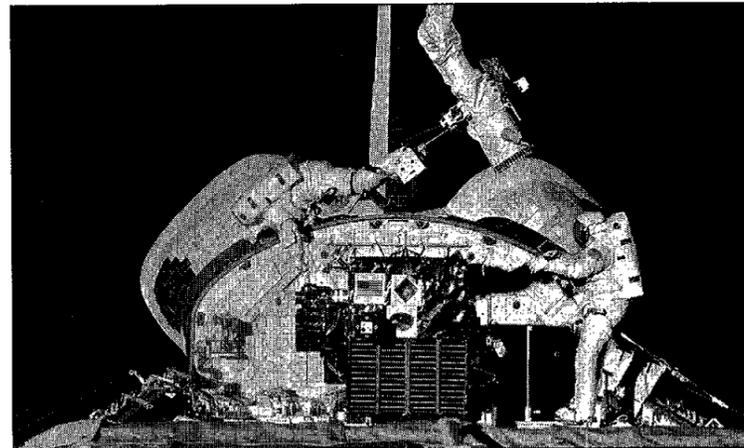
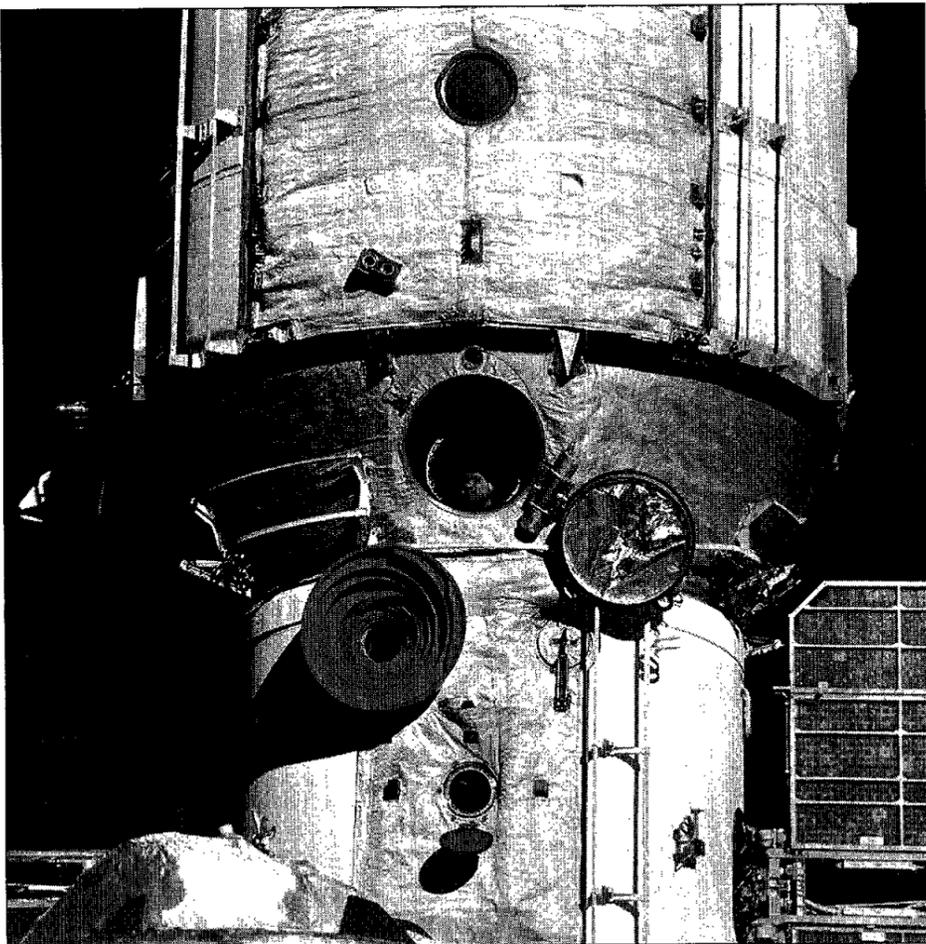
5) The traditional In-flight crew portrait features, in front from left: Collins, Wetherbee and Mission Specialist Bernard Harris; and at rear, from left: Mission Specialists Vladimir Titov, Mike Foale and Janice Voss.

6) Foale, on the Remote Manipulator System arm, is lowered toward the Spartan satellite. He manually unberthed the astronomy probe and passed it off to Harris. From there, Harris grabbed special handles on the satellite and moved it back and forth, testing his ability to control a massive object while mounted to a foot restraint on the side of the payload bay.

7) Russian astronaut Titov handles vials of samples for the Commercial Protein Crystal Growth experiment in Spacehab-3. CPGC produces well-structured proteins used to develop new pharmaceuticals.

8) Harris, top, and Foale prepare to exit the airlock and begin a 4 1/2 hour space walk to test the thermal improvements to their space suits and their ability to manipulate large objects in weightlessness. Harris was the first Afro-American to walk in space.

9) Titov hoists Foale above *Discovery's* cargo bay while anchored to the end of the shuttle's 50-foot long robot arm. This high-angle shot shows his feet, *Discovery's* forward section and the Spacehab-3 module. The space walk enabled Foale and Harris to gather valuable data about the extremes of the cold of deep space and its effect on astronauts who may be called upon to conduct lengthy construction work in the assembly of space station components in orbit. □



Training to help creating customer driven government

[Editors note: This is the latest installment in a series of articles by Chris Williams, a program analyst for the Office of Continual Improvement at NASA Headquarters.]

By Chris Williams

The National Performance Review called for the creation of a President's Management Council to improve the overall management of the executive branch and ensure that reforms of the NPR are implemented. On Oct. 1, 1993, the president signed the executive order officially establishing the PMC and calling for the designation of chief operating officers to serve as representatives. COOs report directly to their agency heads and are usually second in command or the agency

chief of staff. NASA's representative to the PMC is Acting Deputy Administrator Gen. Jack Dailey.

One of the major tasks given to the PMC was to ensure that strategic and quality management principles were effectively implemented across the Executive Branch. As part of its mandate, the PMC has the responsibility to drive the strategic transformation of the federal government across departments and agencies by using quality principles such as customer focus, process improvement and performance evaluation.

Supporting the PMC in this effort is the Federal Quality Institute whose direction was to bring the best ideas, tools and principles to the table to help agencies become the "best in

the business." To do this, FQI partnered with federal agencies and over 100 "change management" experts, such as Peter Drucker and John Gardner, to develop educational templates which each agency can tailor to meet its culture and key business issues.

The first element of this training, "Creating a Customer Driven Government," will be offered to NASA employees beginning in the spring of 1995. To deploy this training, NASA will use internal NASA trainers. This approach best meets the needs of the agency because it provides just-in-time and in-house experts who can tailor the course to meet differing organizational needs and provide follow-up consulting.

Other special topic workshops will be made available to installations and employees as requested. These topics include, benchmarking, business process engineering, the human side of downsizing, labor-management partnerships, cultural change and valuing diversity and putting customers first.

The first phase of training was conducted last October when the NASA Senior Management Group received their own uniquely designed Leadership Executive Overview. This course was created in partnership with FQI and NASA Headquarters. As part of this training, the SMG participated in a hands-on exercise that enabled them to create specific priorities for the 15 implementing strate-

gies contained in the NASA Strategic Plan.

The purpose of the FQI of the training is to meet the quality/continual improvement needs of the participants. Just as the SMG training was specifically designed around the requirements of senior managers, so will the upcoming training courses be tailored to quality/continual improvement needs of employees. Trainers will work with their centers and individual organizations to make this training relevant, timely and useful to the participants.

Currently, NASA is in the process of selecting the in-house trainers for this program who may devote up to 50 percent of their time over the next one to two years.

Hubble images show violent star formation

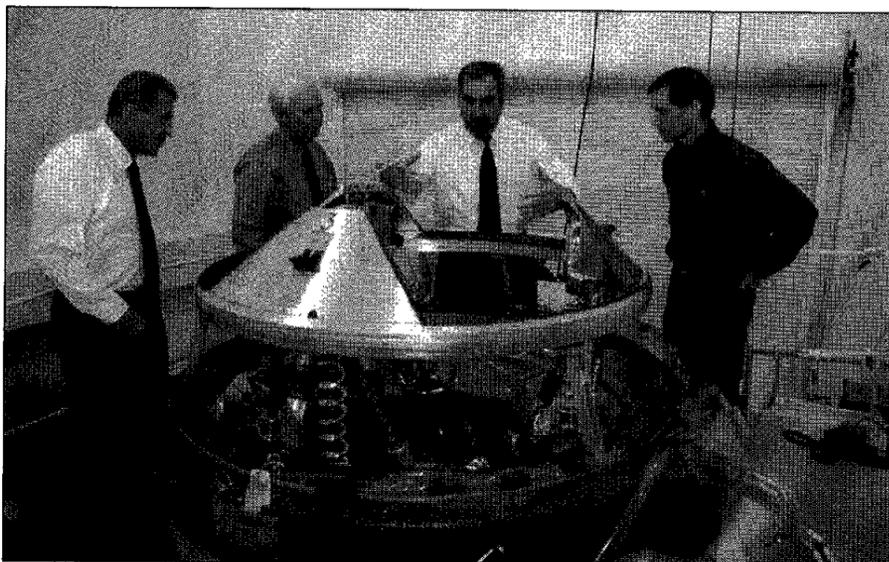
Two new Hubble Space Telescope images show the colorful and often violent events in the life of stars.

The first image, from Hubble's Wide Field and Planetary Camera-2, depicts the core of the nearest starburst spiral galaxy, NGC 253, revealing violent star formation within a region 1,000 light-years across.

A starburst galaxy has an exceptionally high rate of star birth. Hubble's high resolution allows astronomers to distinguish, for the first time, various complex structures in the starburst activity at the core of the galaxy including dust lanes that trace regions of dense gas and filaments of glowing gas. Hubble identified several regions of intense star formation, which include a super-bright compact star cluster.

The second image shows a small portion of a nebula called the "Cygnus Loop." Covering a region in the sky six times the diameter of the full Moon, the Cygnus Loop is actually the expanding blastwave from a stellar cataclysm - a supernova explosion - that occurred about 15,000 years ago. The supernova blast wave has recently hit a cloud of denser-than-average interstellar gas. This collision drives shock waves into the cloud that heats interstellar gas, causing it to glow.

These new images are available from NASA Headquarters or on the Internet.



LINK UP—Shuttle managers study the Orbiter Docking System, that will be used on the first shuttle-Mir docking mission, at Kennedy Space Center. From left are Loren Shriver, shuttle launch integration manager; Gary Crawford, KSC employee; Frank Buzzard, shuttle chief engineer office manager; and Brester Shaw, director of shuttle operations.

Buyout update answers questions

(Continued from Page 1)

has been made, and none will be made until the buyout is complete.

However, Hartman cautioned employees who wait for a possible RIF that they may not be able to separate with any type of severance pay or separation incentive. Unlike separation incentive pay (buyout), severance pay as a result of a RIF is not given to anyone who is eligible for any type of retirement or is receiving any type of federal annuity including military retirement pay. If an employee resigns during a RIF, he or she will not receive severance pay.

Unlike the buyout, which is voluntary, employees can't volunteer to receive severance pay. Since most employees who would receive more than \$25,000 (buyout limit) in severance pay would either be eligible for an annuity or not vulnerable to a RIF, very few employees would receive any additional benefit by bypassing the current buyout with the hope of receiving a greater severance payment during a RIF, he said.

Employees who need more information should contact Employee Services in Bldg. 45, Rm. 140, or call x32681.

Quality conference highlights software

NASA, in cooperation with the American Society for Quality Control, will sponsor a conference on Quality in the Space Industry from 8 a.m.-6 p.m. Wednesday-Friday at South Shore Harbour Resort and Conference Center.

The conference will feature representatives from major space program and defense contracts, NASA Headquarters and field centers, and suppliers to both the space and defense industries. Topics will focus on current issues affecting quality of product and services.

Keynote speaker Frederick Gregory, associate administrator for the Office of Safety and Mission Assurance and a former astronaut, will highlight how to do business with NASA today. Other topics include ISO 9000 and reduction in federal regulations.

The two-day conference will feature six sessions. Each session will focus on specific areas including response to the new NASA environment, integrated product teams, ISO 9000 implementation, software issues, quality liaison panel report and quality management in a changing environment.

Civil servants may register through the training office. For additional information call Glen VanZandt at x33069.

Employees can help fire victims

JSC's Employee Activities Association is coordinating a drive to allow employees to help coworkers who lost their homes and possessions in the recent fire at Balboa Apartments.

JSC employees who suffered losses in the fire, or employees who wish to make donations to fire victims should contact the Exchange Operations Office at x35774. The office will attempt to match the request, with offers of support from other JSC employees.

Any additional items will be distributed through the local United Way office on Egret Bay Blvd.



Mikulski: 'War for America's future will be won in science'

(Continued from Page 1)

Bond, who this year takes over as chairman of the subcommittee that oversees NASA funding after eight years of Mikulski leadership, said change is in the air even though he understands that the agency's work is vital to the children and grandchildren of people in this country and the world.

"How can we continue to put out the tremendous scientific progress that is our space program and do it more efficiently?" he asked. "It's a sad fact that our budget's in such a position that we have to continue to squeeze even our best programs. But no program is going to be able to avoid a very hard look if we are to keep our country's budget, our federal budget and thus our nation's economy strong for the decades ahead."

Nevertheless, the "Show-Me State" senator said he hopes his

14-year-old son will be able to turn his dreams of becoming an aerospace engineer into reality.

"When he and his contemporaries come along, I want them to have that opportunity to be able to make their contributions, taking our country and the world another step or two steps or five steps beyond where this generation is going to take us," Bond told the crowd of aerospace engineers and scientists. "You have shown through your dedication and your accomplishments that you can produce results that have spectacular promise for even greater scientific progress in the future."

Mikulski, now the ranking member of the subcommittee Bond chairs, said she became a convert for America's space station during visits to JSC in years past because "Once I saw it, I got it." She said JSC has strong friends in

Hutchison and Bond, and that the three of them will work together to keep the space program from becoming a political football.

"We cannot let America slide backward," Mikulski said. "We must continue to be a superpower, not only in strong military strength but in the new war for America's future. The war for America's future will be won in science and technology and with the type of warriors in this room."

Mikulski called Hutchison a strong voice in the space program debate who "will duke it out with anybody who wants to cut one nickel from the Johnson Space Center," and Hutchison called Goldin "one of the fiercest fighters I've known."

"When someone says to me 'You're one of those budget-cutting Republicans. How can you support the space station and NASA and

the space program?' I'm very comfortable saying, simply, I'm not going to eat my seed corn. I am going to provide for our future generations," Hutchison said.

Goldin, who received high marks from Huntoon for his visionary work to prepare NASA for the future, complimented the work of the operations and space station teams working at JSC to develop the systems and procedures that will make the international laboratory work.

"You're looking at the best in the world right in front of you," Goldin said. "These are the people who made this happen. These are the people who were able to make this program come into being. In the last year, these people built 37,000 pounds of hardware. These are the people who allowed the rendezvous mission to occur with the Mir space station and even though there were problems in space, they

overcame them. These are the people who are going to cause the Mir mission to occur—I think it's June 10th—where we'll dock the shuttle with the Mir space station and really being the activity. And these are the people who are going to deliver the first elements in November 1997."

Lanier said Houston is proud of the space program and the employees of JSC and its contractors and the contribution they are making to move America forward into a global, knowledge economy of the 21st Century.

"If one were designing a community with its excitement, with its educated people, with its work force out on the cutting edge of knowledge," he said, "I think one would design a city very like the NASA/Clear Lake area and one would design a population very much like all of you."

Endeavour flight to be shuttle program's longest

(Continued from Page 1)

a "spacecraft within a spacecraft". MACE will be operated by Oswald during six days on orbit to collect data on the vibrations imparted on space-based structures. The data should help engineers to design sturdy, vibration-resistant components for the International Space Station.

Endeavour is scheduled to be fueled for launch late Wednesday afternoon, several hours before the

seven astronauts climb aboard for the final phase of the countdown. If Endeavour launches on time, it will conclude its flight with a landing at KSC at mid-afternoon March 17.

Elsewhere, technicians at KSC are busy completing the installation of the three main engines on the shuttle Atlantis for its launch in early June on the STS-71 mission, the first flight in which a shuttle will link up to the Russian Space Station Mir. Work also is winding

down on the replacement of a freon water interchanger in Atlantis which is used to provide cooling for the shuttle's avionics bays and electronics. Atlantis will carry five NASA astronauts and two Russian cosmonauts to Mir to replace two other Russian space travelers and astronaut Dr. Norm Thagard, who are scheduled to be launched on a Soyuz rocket from the Baikonur Cosmodrome on March 14 for a three-month stay aboard Mir.

Discovery is being serviced at KSC following the STS-63 rendezvous mission to Mir. Routine postflight and payload work is being conducted to prepare Discovery for its next flight, STS-70, which is scheduled for late June to deploy the next Tracking and Data Relay Satellite to complete NASA's constellation of communications relay stations in geosynchronous orbit.

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